

sov/86-58-9-33/42

AUTHOR: Andrianov-Verkhnev, M. I., Capt

TITLE: Against Naval Targets (Po morskim tselyam)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 9, pp 77-82 (USSR)

ABSTRACT: The article describes the activities of the Soviet North Fleet aviation against the German convoys at sea during World War II.

Card 1/1

TEODOROVICH, Georgiy Ivanovich; POLONSKAYA, Brungil'da Yakovlevna;

ANDRIANOVA. Aleksandra Glebovna; MELAMEDOVA, Valentina Semenovna;

PISAREMEO. Irina Aleksandrovna; SHYEDOVA, Tamara Mikhaylovna;

VARENTSOV, M.I.; otv.red.; SHAPOVALOVA, G.A., red.izd-va; RYLINA,

Tu.V., tekhn.red.

[Minerelogical-geochemical facies and conditions of the formation
of petroleum-producing terrigenous Devonian strata in western

Bashkiria and eastern Tataratan] Minerelogo-geokhimicheskie
fatsii i usloviia obrasovaniia nefteproizvodiashchikh terrigennykh
otloshenii devona Zapadnoi Bashkirii i Vostochnoi Tatarii. Moskva,

Izd-vo Akad.nauk SSSR, 1960. 148 p.

(MIRA 14:3)

1. Chlen-korrespondent AN SSSR (for Varentsov).

(Ural-Volga region--Petroleum geology)

POGODAYEV, K.I.; TUROVA, N.F.; KHOVAKH, I.M.; ANDRIANOVA, A.G.

Some indices of the state of brain and blood proteins in animals with exhaustion of the central nervous system. Trudy 1-go MMI 34: 533-540 '64. (MIRA 18:11)

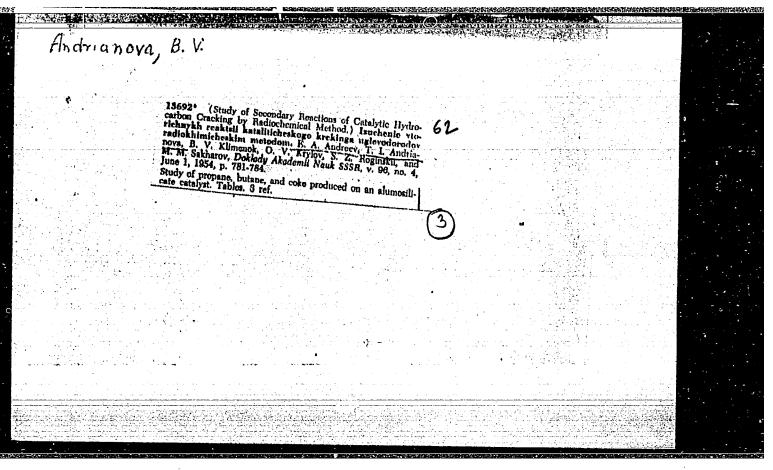
1. Kafedra psikhiatrii (zav. - zasluzhennyy deyatel' nauki prof. V.M. Banshchikov), laboratoriya patokhimii mozga (zav. dektor biolog. nauk K.I. Pogodayev) 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

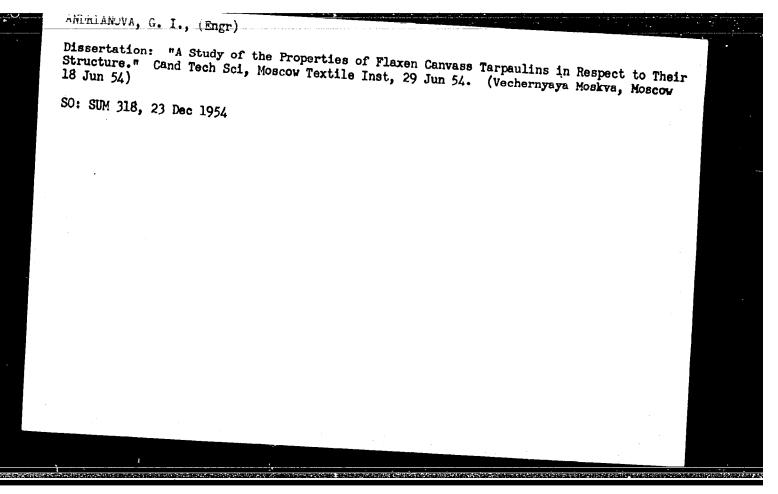
	Article (1984) Article (1984)				
ACC NR	V505515	SOURCE CODE: UR/O1	33/66/000/004/0379/0383		26.
AUTHOR:	Sokolov, N. V. (Canikov, L. D. (Enginee	didate of technical sciences r); Andrianova, A. L. (Techn); Bobyleva, S. F. (Engineer); ician)		
ORG: No	ne Spring wire from sta	inless steel			
•	Stal', no. 4, 1966,				
TOPIC TA		, spring, mechanical propert	y, wire product, magnetic		
ABSTRACT duction perties suppress	: The authors study factors of various v of wire during drawi the γ+α transformat	rarieties of stainless steeling. The results of the studion in order to produce spri	composition and specific pro- on mechanical and magnetic pro ly show that it is necessary to ing wire from stainless steel This suppression can be accom- maintaining minimum titanium	, .	
plished content 1100°C)	by increasing nickel of not more than 5 (and multiple-pass dr	[Content from 10.5 to 11.0% [C-0.02]%, maintaining auster rawing at speeds not exceeding an auster of the contain	, maintaining minimum titanium nization temperatures (1050- ng 150-200 m/min. Nevertheless ns nickel at the upper limit the strength requirements. Thi	,	ę.
Co. 1. 1.	12		wc: 621.771.42		
Card 4/	do 1			1	

SOKOLOV, N.V., kand. tekhn. nauk; BURKOV, G.G., inzh.; KRASIL'NIKOV, L.A., inzh.; GOLOMAZOV, V.A., inzh.; BOBYLEVA, S.F.; LYSKOV, I.K.; Prinimali uchastiye; BRFZHNEV, I.S.; SHCHETKIN, L.I.; YERMATSKAYA, A.M.; ANDRIANOVA, A.L.; SILANT'YEV, L.A.; NADEZHDINA, A.A.; LAKHMOSTOVA, F.S.; DEMENT'YEV, V.F.

Improvement of the processes of manufacturing high-strength, steel brass plated wire. Stal' 24 no.8:756-759 Ag '64. (MIRA 17:9)

1. Beloretskiy staleprovolochno-kanatnyy zavod.





L 6917-65 EWT(1)/EEC(b)-2 IJP(c)/APGC(b)/SSD/AST(a)-1/APWI/AST(a)-3/FSIV+1/ACCHESION NO.

ACCESSION NR: AR4039915

\$/0058/64/000/004/D081/D081

SOURCE: Ref. zh. Fiz., Abs. 4D612

58

AUTHORS: Vereshchagin, I. K.; Andrianova, G. M.

TITLE: Surface-activated electroluminors

CITED SOURCE: Nauchno. yezhegodnik za 1959 g. Chernovitsk. un-t. Fiz. -matem. fak. Chernovtsy*, 1960, 586-587

TOPIC TAGS: luminor, surface active coating, zinc sulfide optic material, electroluminescence

TRANSIATION: The authors investigated the glow of electroluminors obtained by precipitating a coper layer on the surface of ZnS-Ag luminor particles. The electroluminescence spectrum of such phosphors discloses a copeer band, whereas their photoluminescence spectrum remains of the type characteristic of ZnS-Ag. It is concluded hence that the particle surface plays a decisive role in electroluminescence. The thickness of the layer in which field excitation

Card 1/2

L 6917-65
ACCESSION NR: AR4039915

takes place is estimated at 0.1 micron. A. Burlakov.

SUB CODE: OP ENCL: OO

20702

S/120/61/000/001/040/062 E032/E114

21.2100

Ab, E.A., Andrianova, G.M., Plotnikov, R.I., and

Khutsishvili, L.A.

TITLE:

AUTHORS:

A Portable Accelerating Tube Incorporating an Ion

Source for a Neutron Generator

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No. 1, pp 129-130

TEXT: The accelerating tube has been developed for a small-size neutron generator which will replace the Po-Be neutron source used in oil and gas well sampling by the Leningradskiy filial, Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki (Laningrad Branch, All-Union Scientific Research Institute of Geophysical Exploration Methods). The accelerating tube is illustrated schematically in the figure. The neutrons are produced as a result of the D + T reaction. accelerated deuteron ions bombard a zirconium-tritium target of a standard type. In order to maintain the pressure in the tube at the required level, a system of getters and pumps is employed. The ion tube is of the arc type and consists of a cylindrical anode and two disc cathodes. The cathode facing the target has Card 1/4/1)

20702

S/120/61/000/001/040/062 E032/E114

A Portable Accelerating Tube Incorporating an Ion Source for a Neutron Generator

an aperture through which positive ions are extracted. magnetic field which is necessary to focus the ionizing electrons can be produced either by a permanent magnet or a solenoid. If a steel body is used, an electromagnet is preferable. target is located in a massive copper holder so that the instrument can be used without forced cooling for a minimum of 5 to 6 hours. A special electrode in the form of a truncated cone is mounted on the target holder and prevents the occurrence of an avalanche discharge. The negative potential of this electrode is obtained by means of a bias resistor. The deuterium is stored in a special getter as indicated. The getter is made of titanium, or a mixture of zirconium and titanium. deuterium is re-emitted when the getter is heated. It is reabsorbed when the getter is cooled down. The tube has the following characteristics: length 350-400 mm, diameter 35-40 mm, weight 500 g, maximum external pressure 15 atm, deuterium-store heating current 0.3-0.8 A, anode voltage in the ion gun Card 2/13

20702

5/120/61/000/001/040/062 E032/E114

A Portable Accelerating Tube Incorporating an Ion Source for a Neutron Generator

400 to 1000 V, magnetic field strength 600 oe, maximum Three times as many neutrons accelerating voltage 70-110 kV. can be obtained with this tube as with a Po-Be source. With a current at the target of 80 μA , and an accelerating voltage of 110 kV, the neutron yield was 450 curie (± 30%).

There is I figure.

ASSOCIATION:

Leningradskiy filial Vsesoyuznogo nauchnoissledovatel skogo instituta geofizicheskikh

metodov razvedki

(Leningrad Branch, All-Union Scientific Research Institute of Geophysical Exploration Methods)

SUBMITTED:

February 13, 1960

Card 3/\$3

SIDEL KOVSKAYA, F.P.; KOLODKIN, F.L.; ANDRIANOVA, G.M.; SHOSTAKOVSKIY, M.F.

Lactones and lactams. Report No.23: Addition of thiophenol to N-alkenyl lactams. Izv.AN SSSR.Otd.khim.nauk no.9:1631-1638 S '62. (NIRA 15:10)

 Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR. (Benzenethiol) (Lactams)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000101420009-4"

ari kalenderi inder erieteriken erieteriken ala ala ala karaken erieteriken erieteriken erieteriken karaken er

STOYANOVICH. F.M.; FEDOROV, B.P.; ANDRIANOVA, G.M.

Reactions of amidomercaptals with compounds containing the primary amino group. Dokl.AN SSSR 145 no.3:584-587 Jl 162.

(MDRA 15:7)

1. Institut organicheskcy khimii imeni N.D.Zelinskogo AN SSSR.

Predstavleno akademikom B.A.Kazanskim.

(Mercaptals) (Amino group)

POPOV, Ye.M.; STOYANOVICH, F.M.; FEDOROV, B.P.; ANDRIANOVA, G.M.

Ultraviolet and infrared spectra of 2-thienyl sulfides. Part 6. Zhur.ob.khim. 33 no.7:2261-2266 Jl '63. (MIRA 16:8)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR. (Bithiophene-Spectra) (Sulfides)

AB, E.A.; ANDRIANOVA, G.M.; PLOTNIKOV, R.I.; KHUTSISHVILI, L.A.

Portable X-ray tubes for geophysical apparatus. Vop.rud.geofiz. no.4:
130-133 164. (MIRA 18:1)

PRILETHAYEVA, Ye.N.; AZOVSKAYA, V.A.; TSYMBAL, L.V.; GURTYAROVA, Ye.N.; ANDRIANOVA, G.; SHOSTAKOVSKIY, M.F.

Diene condensation of divinyl sulfone, sulfoxide, and sulfide with hexachlorocyclopentadiene. Zhur. ob. khim. 35 no.1:39-46 Ja '65. (MIRA 18:2)

AR, E.F.; ANDRIANOVA, G.M., PLOINIKOV, R.I.; KHUTSUSHVIII. L.A.

Universal accelerating tube. Vop. rud. geofiz. no.5:140141 '65.

(MIRA 18:9)

L 47099-66 EWT(1)/EWT(m) WW

ACC NR: AR6016491 SOURCE CODE: UR/0272/65/000/012/0108/0108

AUTHOR: Ab, E. A.; Andrianova, G. M.; Plotnikov, R. I.; Khutsishvili, L. A.

44B

TITLE: Special tubes for the portable equipment for x-ray spectral analysis

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika, Abs. 12.32.930

REF SOURCE: Sb. Geofiz. priborostr. Vyp. 22. L., Nedra, 1965, 81-87

TOPIC TAGS: x ray emission, x ray measurement, x ray spectrum, x ray spectroscopy, spectrum analysis, x ray tube, portable x ray equipment

ABSTRACT: The drawbacks and limitations of x-ray radiometric analysis with the use of type T¹⁷⁰ or BaC¹⁴⁰O₃ γ -quantum isotope sources are pointed out. In developing dispersionless field spectrometers, the use of special x-ray tubes makes it possible to increase emission efficiency considerably, to provide for radiation measurement safety while simplifying protection by the absence of the hard-emission component and to alter the spectral composition of the emission either by replacing the plates or by using secondary emitters. Examples of

Card 1/2

UDC: 389:539. 184:537. 531:621. 386. 2

EWI(m)/I/EWP(1) L 14608-66 ACC NR: AP6001502

UR/0191/65/000/012/0045 SOURCE CODE:

AUTHORS: Kanavets, I. F.; Andrianova, L. D.; Zuyev, A. P.

ORG: none

TITLE: Evaluation of friction and wear of plastic frictional materials

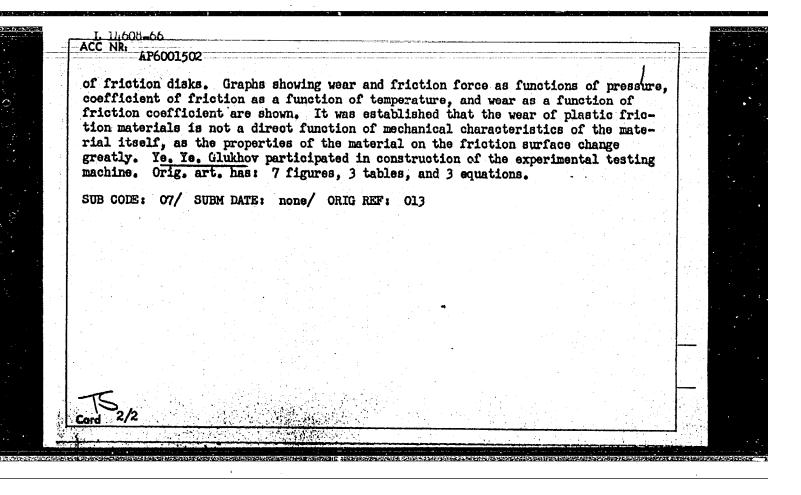
SOURCE: Plasticheskiye massy, no. 12, 1965, 45-51

TOPIC TAGS: friction, friction coefficient, phenolic plastic, polyformal.dehyde plastic / K-217-57 resin, K-F-3 resin, K-F-3M resin, K-248-58 resin, K-248-58N resin, K-248-58S resin

ABSTRACT: The resistance to wear and the coefficient of friction of plastic frictional materials differing in the content of binding substances, fillers, and additives were evaluated from data obtained in the laboratory, testing units, and in full scale experiments on a heavy duty friction tester. The finvestigated materials were: synthetic rubber-based and phenolic-formaldehyde resins K-217-57, K-F-3, K-F-3M, K-248-58, K-248-58N, band K-248-58S. The last two were K-248-58 improved by adding , 5% of polar additives. A simple disk-type laboratory machine is suggested for rapid evaluating of the quality of friction materials. The main advantage of the machine is its ability to change the equipment temperature and to provide large changes of contact temperature on the friction surface by regulating the temperature

1/2

UDC: 678.01:539.53



KARGIN, V.A.; KABANOV, V.A.; ANDRIANOVA, G.P.

Heterogeneous polymerization of sodium acrylate in the presence of other salts. Vysokom.soed. 1 no.2:301-307 F 159. (MIRA 12:10)

1. Moskovskiy gosuniversitet im. M.V.Lomonosova, Khimicheskiy fakulitet, Kafedra vysokomolekulyarnykh soyedineniy.
(Acrylic acid) (Polymerization)

15 4/30

2209, 1372_

25854 \$/020/61/139/004/014/025 B103/B206

AUTHORS:

Card 1/4

Kargin, V. A., Academician, and Andrianova, G. P.

TITLE:

Formation of large microscopic structures in crystalline polypropylene

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 4, 1961, 874 - 876

TEXT: The authors studied the microscopic structures of isotactic polypropylene (molecular weight about 100,000), which are formed from the melt of the polymer during slow cooling (0.07 deg/min). The melt was cooled to a required temperature and kept at this temperature for 6 hr. The authors investigated the surface of a brittle fracture which is formed during impact deformation at the temperature of liquid nitrogen. A metallographic microscope of the type MMM -8H(MIM-8M) was used. Most publications so far concern either thin films or dirute solutions, in which such structures can only be formed incompletely. The authors proved that the crystallization of isotactic polypropylene in the condensed phase may proceed up to the formation of very big spherolites (40 - 200 ct.) and even crystals (over 200 ct.) Size and character of the structural elements of the spherolites change

25851, \$/020/61/139/004/014/025 B103/B206

Formation of large microscopic ...

with the crystallization temperature. The authors are certain that the properties of the polymeric substance are greatly affected by such crystalline structures. The spherolites are spherically symmetric and have distinct interfaces. In the authors' opinion, a quick formation of such perfect crystalline structures is inconceivable, if the polymeric melt is regarded as a system of irregularly entangled chains. They believe that the molecular chains have already been arranged in the melt. Thus, only a certain completion of this arrangement, which ends with the formation of the crystalline phase, seems to occur during the relatively short cooling time. The formation of such big spherolites under the prevailing high viscosity and the low mobility of the chains are taken as further proof of the packet theory of polymeric substances by V. A. Kargin, A. I Kitaygorodskiy, and G. L. Slonimskiy (Ref. 7: Koll. zhurn., 19, 131 (1957)). According to this theory, polymers in crystalline and even amorphous state are considered to be well ordered systems, built up either from globules or unfolded chains which are comprised into packets (V. A. Kargin, N. F. Bakeyev, Ref. 8: Koll. zhurn., 19, 133 (1957)). Crystallization starts within a packet. while the formation of a crystalline structure is the last stage of the arrangement of the chains. The most perfect crystalline form are single Card 2/4

25854 8/020/61/139/004/014/025 B103/B206

Formation of large microscopic ...

crystals. In most cases, however, crystallization does not reach this stage but comes to a standstill in the stage of forming less perfect, secondary structural spherolites. This is more favorable from the kinetic point of view, since it requires only a minimum rearrangement of the little mobile structure of the crystalline polymer. The authors will discuss the results of the study of monocrystals in a special paper. The crystals were regularly faceted and showed no radial symmetry. The authors established the following rules for the temperature effect on the structure of spherolites: 1) At a crystallization temperature between 130 and 140°C, spherolites of a size of 40 - 100 μ are formed. At about 100°C their diameter reaches 160 - 220 m. 2) Spherolites formed above 100°C have a lamellar structure; at temperatures below 100°C, their structural elements become fibriform, until the spherolites degenerate to a system of entangled fibrils. The character of destruction of a polymeric substance is strongly affected by its crystalline structure. For a brittle fracture of a polymeric block concisting of large structures, destruction possibly occurs along the boundaries of the crystal grains. Specimens with big spherolites (about 200 μ) are much more easily destroyed than those consisting of small crystals. In many cases, impact deformation also leads to a

 \rangle

Card 3/4

S/020/62/146/006/011/016 B106/B186

AUTHORS:

Kargin, V. A., Academician, Andrianova, G. P.

TITLE:

Supermolecular structures in isotactic polypropylene foils

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 146, no. 6, 1962, 1337-1339

TEXT: Microscopic analysis of the structuralization of isotactic polypropylene foils as dependent on the temperature of the melt and on the cooling rate of the foils revealed spherolitic structures which may greatly vary in shape and size (the latter from 20 to 400µ), depending on the conditions of crystallization. The two principal forms of spherolites differed only in their structural defects. Two-dimensional spherolites with a distinctly marked fibrillar structure (first type) are formed by heating polypropylene to 195°C between microscope slides and by slowly cooling them down to room temperature within 5-6 hrs. The second type are big, compact spherolites with fewer defects than the first type. These are obtained by pressing foils (melt temperature, 230-280°C) which are then cooled down to 80°C, or by keeping finished polypropylene foils at 180°C for 5-10 min and subsequently at 80°C for 5-6 hrs. In addition, there was a great variety of Card 1/3

Supermolecular structures ...

S/020/62/146/006/011/016 B106/B186

crystalline structures. Spherolites begin to intergrow as soon as crystal centers of colloidal dimensions occur. These centers are oriented along parallel straight lines with different spacing. The widths of the spherolites depends on the number of parallel straight lines. Supermolecular intergrowth occurs when the temperature of the melt is too low to melt the large number of crystallization nuclei. Thus, the 'fluctuation clusters' in the melt become centers of structuralization. The structures are strongly affected by changes in the temperature of the melt and in the cooling rate of the foils. No large spherolites and intergrowths are obtained by allowing melts to cool from 180-200°C down to room temperature within 20-30 min. Foils kept at 135 - 140°C for 1-6 hrs display fibrillar structures, since the molecular mobility of polypropylene at these temperatures is so high that previously prevented crystallization becomes possible. In the next paper pecularities of the mechanical behavior of the various morphological forms of isotactic polypropylene revealed here will be reported. There are 4 figures. The English-language references are: F. J. Padden, H. D. Keith, J. Appl. Phys., 30, no. 10, 1479 (1959); Masakazu Inoue, J. Polym. Sci., 55, no. 162, 443 (1961).

Card 2/3

ANDRIANOVA, G.P., KARGIN, V.A.

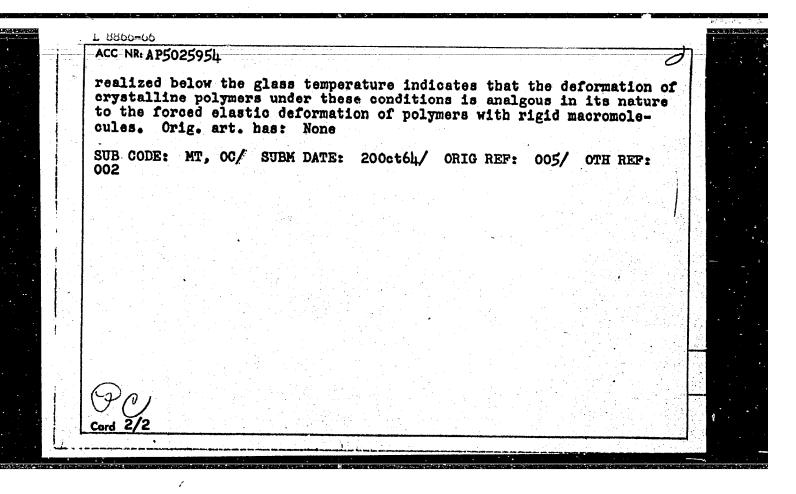
Effect of microscopic structures on the mechanical behavior of isotactic polyprepylene.

Report presented at the 13th Conference on high-molecular compounds Moscow, 8-11 Oct 62

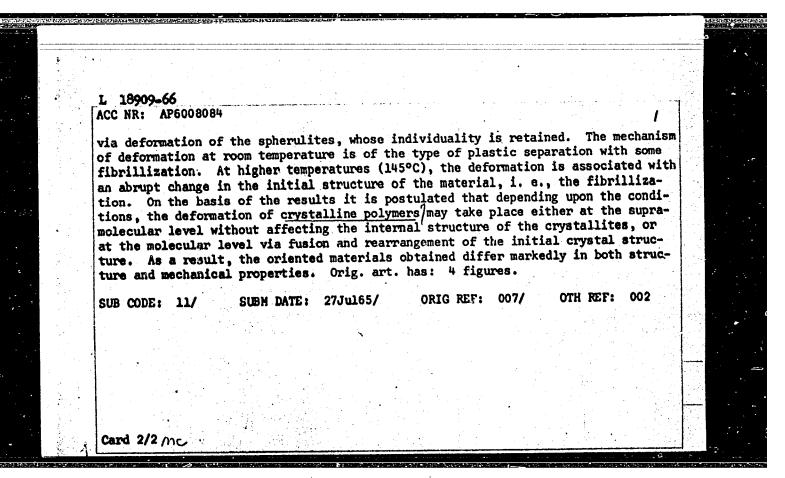
ASD Ps-4/Pc-4/Pr-4 RM EPR/EWP(1)/EPF(c)/EWT(m)/BDS S/0020/63/150/002/0331/0332 ACCESSION NR: AP3000520 AUTHOR: Andrianova, G. P.; Bakeyev, N. F.; Kargin, V. A. (Academician) TITIE: Influence of the microscopic structures on the mechanical behavior of crystal polypropylene SOURCE: AN SSSR. Doklady, v. 150, no. 2, 1963, 331-332 TOPIC TAGS: crystal polypropylene, Schopper machine, isotatic polypropylene, fine spherulites, polymers ABSTRACT: The present work is based on earlier investigations by the authors (V. A. Kargin, G. P. Andrianova, DAN, 146, no. 6, 1337, 1962 and V. A. Kargin, G. P. Andrianeva, DAN, 139, no. 4, 874, 1961) on the structures of polypropylene. Coatings of a thickness from 30 to 130 microns were prepared by pressing at fusion temperature of 230C, and different cooling rates (from 5 to 0.2C per min). Tensile tests were made at room temperature with Schopper machine (East German manufacture) provided with a device which automatically draws a stress-strain diagram on specimens with 3.2 mm width and 5 mm gage length, with speed of 2 mm per minute. Coatings with fine spherulites (up to 30 micron diameter) had elongation up to 600%, coatings with bigger spherulites (diameter from 40 to 60 microns) had up to 300% elongation, and with a diameter from 250 to 400 microns the elongation was 7-10% respectively.

The authors conclude that si essential influence for defe of the micro-structure of the art. has: 1 figure.	lse and "morphology" of the crysta prmation ability of isotatic polyp ne polymer will change the mechani	l structure shows an ropylene. Changes cal properties. Orig.	
ASSOCIATION: Institut nefte (Institute of Petrochemical	khimicheskogo sinteza Akademii na Synthesis, Academy of Sciences SS	uk SSSR SR)	
SUBMITTED: 16Jan63	DATE ACQ: 12Jun63	ENCL: 00	
SUB CODE: PH, CH	No ref sov: 003	OTHER: 003	

Lar (m)/ Enr (J)/T ACC NR: AP5025954 SOURCE CODE: UR/0190/65/007/010 AUTHOR: Kardash, G. G. Andrianova, G. P.; Bakeyev, N. F V. A. 49,55 ORG: Institute of petrochemical Synthesis, AN SSSR (Institut neftekhimicheskogo sintezs AN SSSR) Investigation of the deformation of isotactic polypropylene at low temperatures is SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 10, 1965, 1670-1672 TOPIC TAGS: polypropylene plastic, polymer structure, amorphous polymer, crystalline polymer, plastic deformation, elongation ABSTRACT: The deformation of crystalline and amorphous polypropylene was studied at low temperatures to belp elucidate the nature and mechanism of major deformations. It was found that crystallization of isotactic polypropylene sharply increases its ability to deform below its glass temperature. Thus the elongation at break of crystallized samples with well developed structures is 200-150% at -40 to -70°, while amorphous and atactic polypropylene rupture readily at these temperatures. The reversibility of polypropylene deformations Card 1/2 UDC: 678.01:53+678.742



<u></u>		· · · · · ·	g f
	7 3000 66 #JM/-\/mm/4\/m pv		
	L 18909-66 EMT(m)/EWP(j)/T RM ACC NR: AP6008084 (A) SOURCE CODE: UR/0020/66/166/005/1155/1157		
į.	AUTHOR: Kardash, G. G.; Andrianova, G. P.; Bakeyev, N. F.; Kargin, V. A. (Academician)		
å å	ORG: Institute of Petrochemical Synthesis, Academy of Sciences SSSR (Institut neftekhimicheskogo sinteza Akademii nauk SSSR)		
	TITLE: Study of the characteristics of large deformations of polypropylene over a wide temperature range		
	SOURCE: AN SSSR. Doklady, v. 166, no. 5, 1966, 1155-1157		
and Company	TOPIC TAGS: polypropylene plastic, crystalline polymer, polymer structure, material deformation, thermal effect		
	ABSTRACT: In order to determine the mechanism of large deformations of crystalline polymers, the behavior of uniaxial isothermal tensile deformation and its reversibility were studied over a wide temperature range in polypropylene films containing spherulites measuring up to 80-100 µ. Microscopic and x-ray diffraction data		
	showed that the process of stretching of the polymer at room temperature proceeds		
r i	UDC: 541.6	2_	



USSR/Physics - Magnetic flux

FD-1485

Card 1/1

: Pub. 146-8/20

Author

Grachev, A. A.; Goronina, K. A.; Kolachevskiy, N. N.; and Andrianova,

I. A.

Title

: Experimental investigation of variation of magnetic flux in a cable at

reversal of magnetization of one domain

Periodical

: Zhur. eksp, i teor. fiz., 27, 313-317, Sep 1954

Abstract

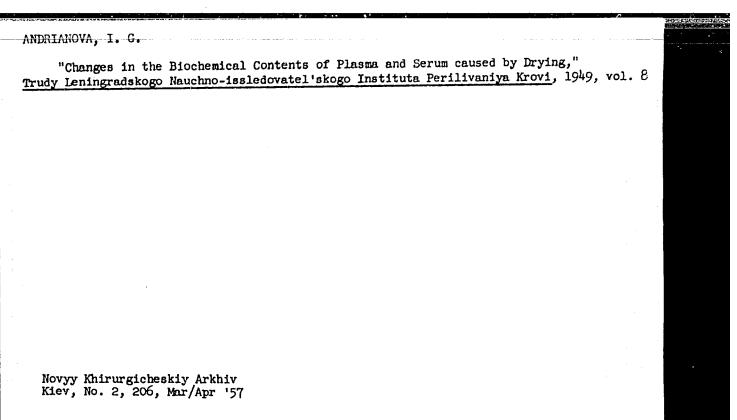
: Results of experimental investigation of magnetic flux generated in a single domain of a ferromagnetic cable are outlined. Experimental data concur within 10% accuracy with theoretical computation by S. M. Rytov

(ibid, 307-312). Four references.

Institution : Physicotechnical Institute, Gor'kiy State University

Submitted

: December 28, 1953



ANDRIANOVA, I. C. and FILATOV, A. N.

"Bioplast Masses from Blood for Surgical Purposes," Acad. Sci., 1951

Translation D 513904

AMDRIANOVA, I. G.

Preparation of blood plasma for drying. Cas. lek. cesk. 90 no.48: 1431-1432 30 Nov. 1951.(CIML 21:3)

1. Of Leningrad Scientific-Research Institute of Blood Transfusion.

ANDRIANOVA, I. G.

Dried prothrombin and its experimental and clinical use. Cas. lek. cesk. 90 no. 48:1432-1435 30 Nov. 1951. (CIML 21:3)

1. Of the Laboratory of Dry Preparations (Head--Docent L. G. Bogomolova) of Leningral Scientific Research Institute of Blood Transfusion (Director--A. J. Kiselev; Scientific Supervisor--A. N. Filatov).

ANDRYANOVA, I.G.

Dried thrombin and its use at the Leningrad Institute of Blood Transfusion. Khirurgiia, Moskva no. 7:83-85 July 1952. (CLML 23:1)

1. Candidate Biological Sciences. 2. Of Leningrad Order of the Red Banner of Labor Scientific-Research Institute of Blood Transfusion.

ANDRIANOVA, I.G., kandidat biologicheskikh nauk; BOGOMOLOVA, L.G., kandidat meditsinskikh nauk.

Medicinal preparations from blood. Priroda 42 no.8:100-102 Ag 153. (MLRA 6:7)

1. Leningradskiy nauchno-issledovatel'skiy institut perelivaniya krovi.
(Blood as food or medicine)

AUTRIUMS AUT TO TO THE

USSR /Medicine - Biochemistry

FD-2468

Card 1/1

Pub 33-19/24

Author

: Andrianova, I. G.

Mary Property Committee of the Committee

Title

: Preparation of dry hemoglobin and possible ways of its use

Periodical: Fiziol. zhur. 2, 285-286, Mar-Apr 1955

: Hemoglobin is liberated from an erythrocyte suspension through hypotonic solutions (0.1% Ca Cl2) and filtered. Spectrophotometric control revealed that the hemoglobin solution is in the form of oxyhemoglobin, which can be preserved in sealed ampules up to 6 months. Daily intravenous injection of 10 to 20 cc of the solution for 10 to 12 days did not produce any harmful effect, but also no significant clinical effect was seen in anemic patients.

Five references, one of these USSR (1937).

Institution: Laboratory for Research on Dry Blood Preparations, Leningrad Order of the Red Banner Scientific-Research Institute for Blood

Transfusion

Submitted: August 6, 1953

ANDRIANOVA, I.G., starshiy nauchnyy sotrudnik; BRON, O.B.; ZAKHAROVA, L.G.; PLASTOVA, N.F.; HUNYANTSEVA, T.B.

Data on the vitamin C saturation of the blood of donors living in various localities of the R.S.F.S.R. Akt.vop.perel.krovi no.4:21-23 155. (MIRA 13:1)

1. Fiziko-khimicheskaya laboratoriya Leningradskogo instituta perelivaniya krovi (zav. laboratoriyey - prof. A.P. Vishnyakov). (ASCORBIC ACID) (BLOOD)

ANDRIANOVA, I.G., starshiy nauchnyy sotrudnik; BOGOMDIOVA, L.G., doktor med.
nauk; VISHNYAKOV, A.P., prof.; KISELEV, A.Ye., dots.; YAKOVLEVA, T.M.,
nauchnyy sotrudnik

Further improvement of the vacuum-freezing method for drying biologicals in accordance with conditions of actual manufacture. Akt.vop.perel. krovi no.4:147-149 155. (MIRA 13:1) (BIOLOGICAL PRODUCTS--DRYING)

ANDRIANOVA, I.G., starshiy nauchnyy sotrudnik; DONSKOY, K.V.

High-frequency current as a source of thermal energy in the vacuumfreezing method of drying biological preparations from blood. Akt. vop.perel.krovi no.4:150-152 *55. (MIRA 13:1)

1. Iaboratoriya sukhikh preparatov krovi Leningradskogo instituta perelivaniya krovi (zav. laboratoriyey - doktor med.nauk L.G. Bogomolova).

(BIOLOGICAL PRODUCTS--DRYING)

ANDRIANOVA, I. G., and CHAPLYGINA, Z. A.

"The Influence of Conditions of Preservation on the Biochemical Composition of Plasma and Serum Dried by the Vacuum-Freezing Method," by I. G. Andrianova and Z. A. Chaplygina, Aktual'nyye Voprosy Perelivaniya Krovi (Essential Problems of Blood Transfusion) Leningrad, Medgiz, Vol 4, 1955, pp 152—153 (from Referativnyy Zhurnal -- Khimiya, Biologicheskaya Khimiya, No 14, 25 Jul 56, p 97, Abstract No 13952).

"Dried plasma and serum of blood may be preserved for a long time without any changes of biochemical composition only in ampoules that have been sealed under vacuum at a temperature of +5 to $+28^{\circ}$. To prevent certain changes of biochemical properties and composition in conditions of incomplete hermetic sealing, it is necessary to preserve the serum at +5 to $+15^{\circ}$ in a dry and dark place."

Sum 1219

BOGOMOLOVA, L.G., doktor med.nauk; ANDRIANOVA, I.G., starshiy nauchnyy sotrudnik

Biochemical composition and physicochemical properties of plasma and blood serum subjected to sterilization. Akt.vop.perel.krovi no.4:153-156 155. (MIRA 13:1)

1. Laboratoriya sukhikh preparatov krovi Leningradskogo instituta perelivaniya krovi.

(BLOOD PLASMA--STERILIZATION)

ANDRIANOVA, I.G., starshiy nauchnyy sotrudnik

Ļ

Obtaining dry hemoglobin preparation and possible methods for its use. Akt.vop.perel.krovi no.4:173-175 '55. (MIRA 13:1)

1. Laboratoriya sukhikh preparatov krovi Leningradskogo instituta perelivaniya krovi (zav. laboratoriyey - doktor med.nauk L.G. Bogomolova).

(HEMOGLOBIN)

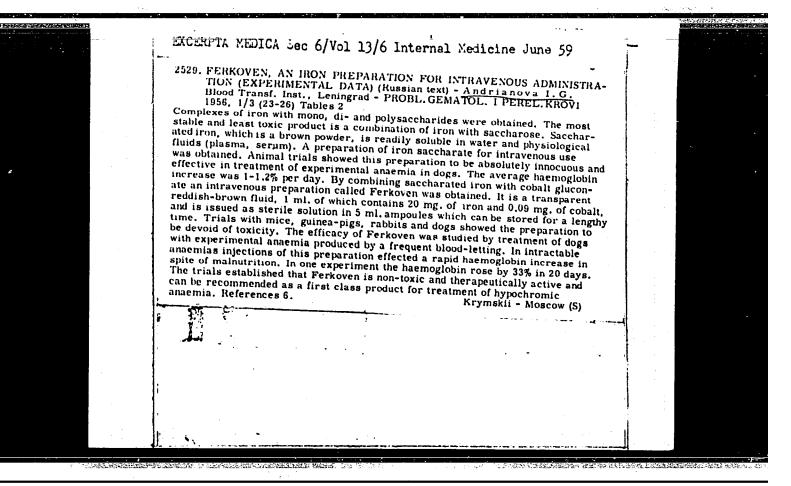
ANDRIANOVA, I.G., starshiy nauchnyy sotrudnik

Obtaining and testing compound hemoglobin-containing preparations experimentally. Akt. vop. perel. krovi no. 4:175-177 '55.

(MIRA 13:1)

1. Laboratoriya sukhikh preparatov krovi Leningradskogo instituta perelivaniya krovi (zav. laboratoriyey - doktor med.nauk L.G. Bogomolova).

(HEMOGLOBIN)



ANDRIANOVA, I.G.; ROMANKO, T.A.

Further experimental and clinical studies of the effects of the preparation farcoven [with summary in English, p.61-62]. Probl. gemat. i perel. krovi 3 no.1:21-24 Ja-F 158. (MIRA 11:3)

1. Is laboratorii sukhikh preparatov krovi (sav. - prof. L.G.
Bogomolova) i gematologicheskoy kliniki (sav. - prof. S.I. Sherman)
Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo instituta perelivaniya krovi (dir. - dotsent A.D.Belyakov,
nauchnyy rukovoditel' chlen-korrespondent AMN SSSR prof. A.N.Filatov)

(IRON, therapeutic use,
saccharate, snemia (Rus))

(ANEMIA, therapy,
iron saccharate (Rus))

ANIRIANOVA, I. G., Doc Biol Sci (diss) -- "Iron-containing preparations for the treatment of hypochromic anemia of various ethology". Leningrad, 1959. 17 pp (First Leningrad Med Inst im Acad I. P. Pavlov), 200 copies (KL, No 20, 1959, 110)

BOGOMOLOVA, L.G., prof.; ANDRIANOVA, I.G.; ALEKSANDROVA, P.M.

Use of bioplastic, a new preparation. Khirurgiia no.6:125-128

Je '61. (MIRA 14:11)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta perelivaniya krovi.

(HEMOSTATICS) (BLOOD AS FOOD OR MEDICINE)

ANDRIANOVA, I.G., doktor biologicheskikh nauk (Leningrad, Lanskoye shosse, d.43, kv.27)

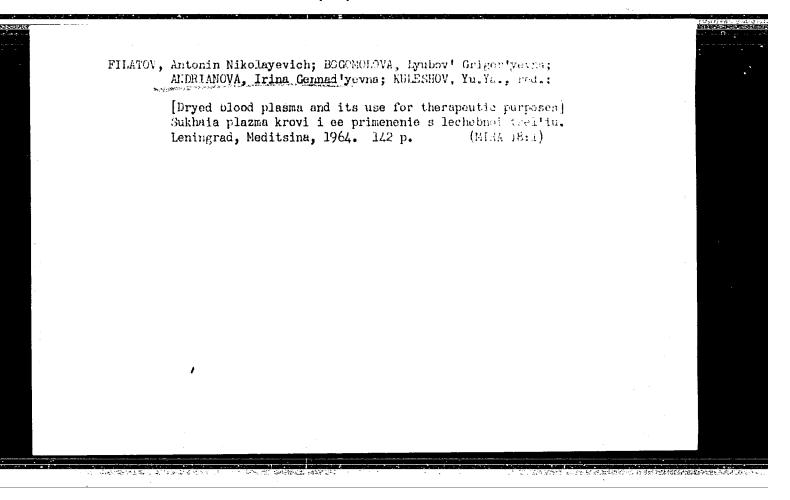
Possibility of using fat for parenteral nutrition in surgical diseases; review of Soviet and foreign literature. Vest. khir. 70 no.62133-141 Je.63 (MIRA 16:12)

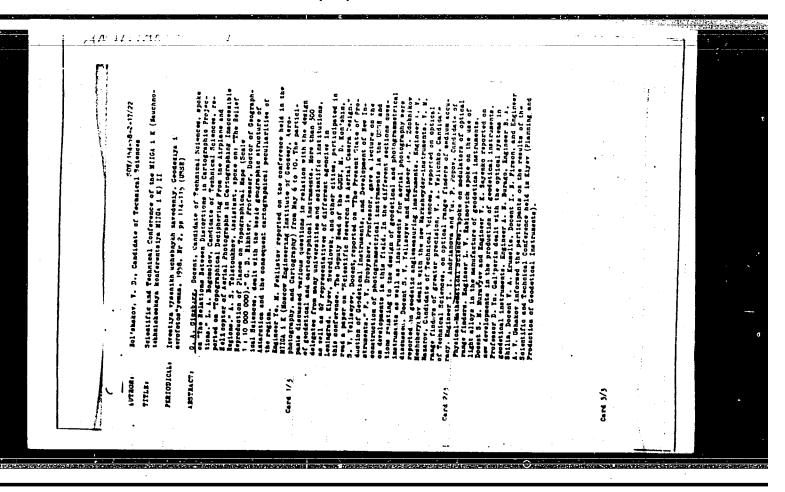
1. Is laboratorii po izucheniyu preparatov krovi i krovozameniteley (zav. - prof. L.G.Bogomolova) leningradskoge nauchmeissledovatel'skogo ordena Trudovogo Krasnogo Znameni institute
perelivaniya krovi (nauchnyy rukovoditel' prof. A.N.Filatov).

ANDRIANOVA, I.G.

Iron containing preparations in the treatment of hypochromic anemia of different etiology; survey of the literature. Probl. gemat. i perel. krovi 8 no.7:3-12 Jl *63. (MIRA 17:10)

1. Iz Leningradskogo instituta perelivaniya krovi (dir. -dotsent A.D. Belyakov, nauchnyy rukovoditel - chlen-korrespondent AMN SSSR prof. A.N.Filatov).





ANDRIANOVA, I.I.

Frequency characteristics of diffraction modulators of light having ferroelectric ceramic emitters of ultrasound. Opt. i spektr. 12 no.1:99-105 Ja '62. (MIRA 15:2) (Diffraction) (Ultrasonic waves—Measurement)

ANDRIANOVA, K. I.

Dissertation: "Stratigraphy and Fauna of the Brachiopods in the Fransk Formation of Kolvo-Visherskiy Kray." Cand Geol-Min Sci, All-Union Sci-Res Inst of Geological Prospecting for Petroleum, Leningrad, 1953. (Referativnyy Zhurnal--Geologiya/Geografiya, Moscow, Aug 54)

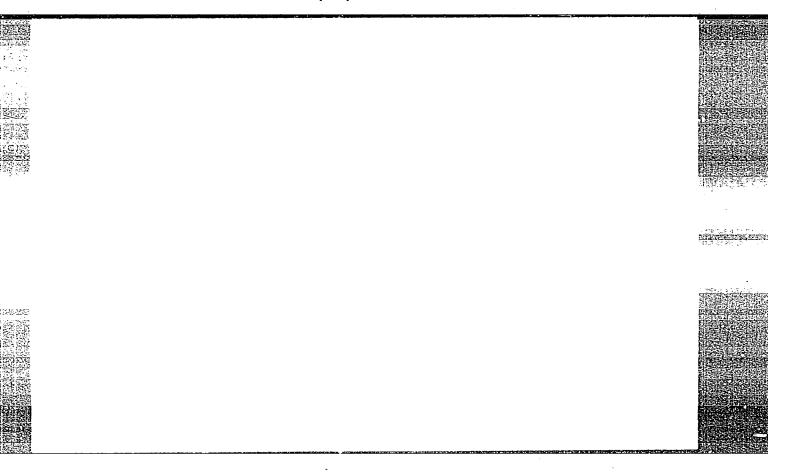
SO: SUM 393, 28 Feb 1955

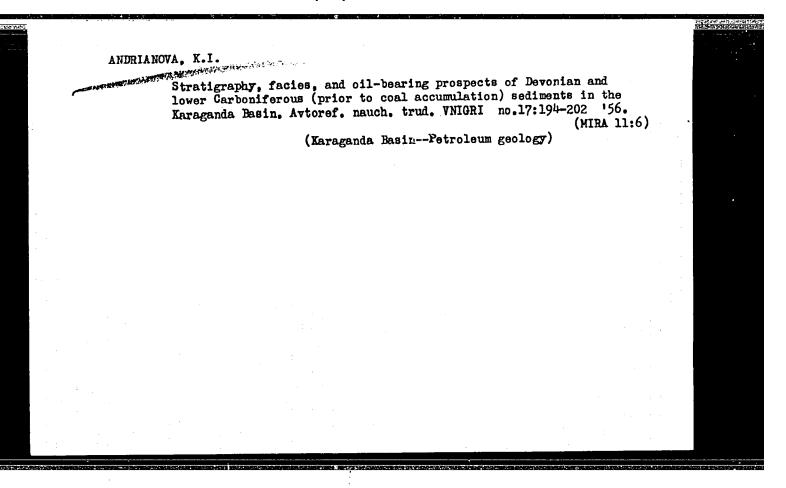
ANDRIANOVA, K. I.

"Reclamation of Virgin Land - The Most Important Source of Increase in Wheat Production," published in - An Aid to Agricultural Specialists in the Reclamation of Virgin and Fallow Fields, Sbornik Materialov i Statey, Vol. 1, pp 25-144, 1954

Cand. Agr. Sci., Sr. Sci. Colleague at Inst. of Agric. Kazakh Affil. of VASKhNIL

Translation No.431, 30 Jun 55





CCHPTEY: USSR
CATHORY: Cultivated Plants. General Problems.

ABS. JOUR.: RZhBiol., Mo. 3, 1959, No. 10360

AUTHOR: Andrianova, K., Saventin, V.

INST.: The System of Agriculture in the Zone of the Development of Virgin Lands of Kustanayskaya Oblast!.

ORTG. PUB.: Peredov. opyt v s. kh. Kazakhotana, 1957, No. 6-7, 5-14.

ABSTRACT: No abstract.

ANDRIANOVA, K.I.; ZYKOV, D.A.; USPANOV, U.U.; GLAZYRINA, D.M., red.;
ALPEROVA, P.F., tekhn.red.

[Proceedings of the joint scientific session in Kustanay devoted to the problems of the Turgay regional economic complex] Trudy Ob edinennoi Kustanaiskoy nauchnoy sessii, posviashchennoi problemam Turgaiskogo regional no-ekonomicheskogo kompleksa. Vol.1 [Materials of the agricultural section] Materialy sel'skokhoziaistvennoi sektsii. Alma-Ata, Isd-vo Akad, nauk Kazekhskoi SSR, 1958, 239 p. (MIRA 12:2)

1. Ob yedinennaya Kustanayskaya nauchnaya sassiya, posvyashchennaya problemam Turgayskogo regional no-ekonomichaskogo kompleksa. Kustanay. 1957. 2. Ministerstvo sel skogo khosyaystva KasSSR (for Andrianova). 3. Institut pochvovedeniya Akademii nauk KasSSR (for Uspanov). 4. Akademiya nauk KasSSR (for Zykov). (Kustanay Province--Agriculture)

ANDRIANOVA, K.I.

Measures for controlling wind erosion. Zemledelie 8 no.11:43-50 N 160. (MIRA 13:10)

1. Chlen-korrespondent Akademii sel'skokhozyaystvennykh nauk Kazakhskoy SSR. (Kazakhstan-Wind erosion)

ANDRIANOVA, K.I.

More attention to the Virgin Territory. NTO 3 no.4:5-6 Ap 161. (MIRA 14:3)

1. Predsedatel Kazakhskogo respublikanskogo pravleniya Nanchnotekhnicheskogo obshchestva selskogo i lesnogo khozyaystva. (Virgin Territory)

CIA-RDP86-00513R000101420009-4 "APPROVED FOR RELEASE: 03/20/2001

M

Category: Cultivated Plants. Grains.

Abs Jour: RZhBiol., No 22, 1958, No 100225

: Andrianova, K.S. Author

Inst

Title

: The Influence of the Agricultural Backgrounds of Breeding on the Formation of Economically Useful Characteristics in Winter Wheat Hybrids.

Orig Pub: S. kh. Povolzh'ya, 1958, No 5, 38-41

Abstract: No abstract.

cerd : 1/1

M - 20

ANDRIANOVA, K. V.

USSR/Metals - Metallography

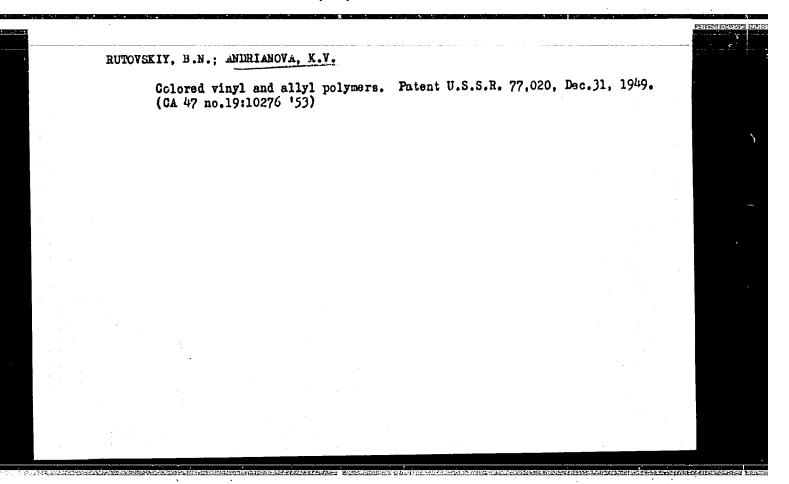
Sept 50

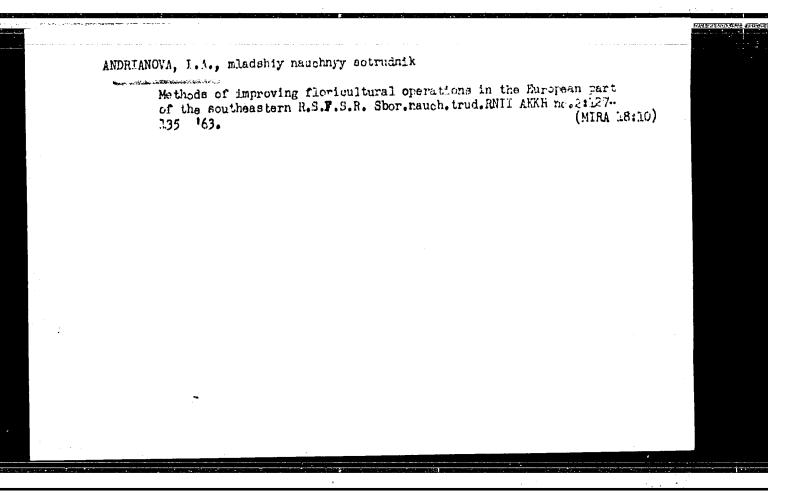
"New Method for Mounting Metallographic Specimens," N. D. Sobolev, B. N. Rutovskiy, G. S. Goncharov, K. V. Andrianova, Moscow Inst of Chem Mach Const

"Zavod Lab" Vol XVI, No 9, p 1134

Samples of metals to be studied are placed in glass vessel which is then filled out with methylmethracrylate, styrol or some other vinyl derivative with initiator preliminarily dessolved in it. Vessel must be closed and kept at temperature from 40 to 60° until polymerization process is completed and solid block is formed.

PA 169T61





ANTONOVSKIY, V.I.; GARKOVIK, N.L.; Prinimala uchostiye ANDRIAMOVA, L.A.

Production of tert-butyl-peroxysectate and tert-butylperoxybenzoate. Khim. prom. no.2:87-91 F '64.

(MIHA 17:9)

UR/0000/66/000/000/0029/0030 SOURCE CODE: 156036476 ACC NRI 6+1 AUTHOR: Andrianova, L. A. ORGI none TITLE: Changes in the neurohumoral activity of the hypothalamic region during exposure to a number of extremal spaceflight factors [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966] SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Noscow, 1966, 29-30 TOPIC TAGS: combined stress, biologic acceleration effect, ionizing radiation biologic effect, rabbit, neurosecration, biologic secretion, hypothalamus, hypophysis, space physiology ABSTRACT: The effect of spaceflight stress factors mobilizes the neuroendocrine mechanisms of the adaptive reactions of the organism. The hypothalamichypophyseal system plays a special role in assuring the adaptation of the organism to changes in the external environment. One of the functions of the hypothalamic area is the production and secretory regulation of hypo-Card 1/3

0

L 08279-67-

AT6036476 ACC NR:

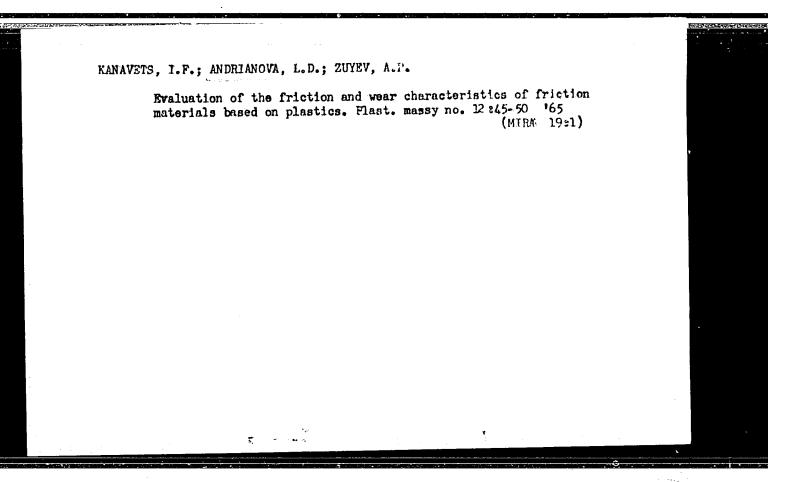
physeal hormones. Experiments were performed in order to determine the effect of two stress factors (acceleration and ionizing radiation) on the neurosecretory nuclei of the hypothalamus.

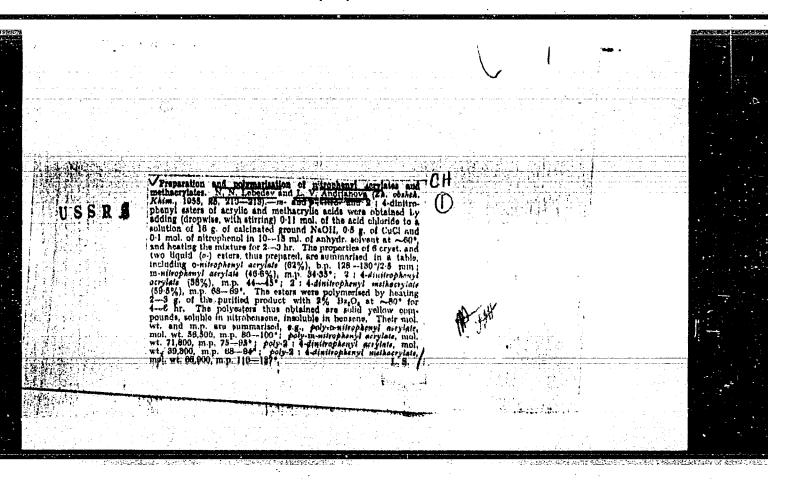
Male rabbits were subjected to 10-G accelerations for 4 min in the first series of experiments, and in the second series the animals (also male rabbits) were subjected to whole-body irradiation by a 400-r dose of gamma rays from a CO60 source.

The neurosecretory function of the hypothalamus was evaluated by histochemical methods based on the presence of neurosecretory material in cells of the supraoptical and paraventricular nuclei. In addition, the antidiuretic activity of the blood plasma was determined in animals which had been subjected to acceleration. In animals which had been exposed to radiation, in addition to determining the antidiuretic activity, the oxytocic activity of hypothalamic extract was also determined. Determinations were made prior to exposure to stress factors and 10-15 min afterwards, 8 hr afterwards, and during the first and third 24-hr periods. The data obtained indicate changes in the neurosecretory processes of the nuclei. An increase in antidiuretic activity of the blood plasma was observed in the animals 10--15 min after exposure to acceleration.

Card 2/3

ACC NR. AT60364.76 An accumulation of neurosecretions was found in the neurons of the supraoptical and paraventricular nuclei 3 hr after irradiation. At the same time an increase in the antidiuretic and oxytocic activity of the extracts of the hypothalamus was noted. After 24 hr, however, it was found that the neurosecretory activity of the nuclei of the hypothalamus returned to its initial level. [W.A. NO. 22; ATD Report 66-116] SUB CODE: 06 / SUBM DATE: 00May66	0	
 Card 3/3 vmb		





S/078/63/008/003/001/020 B117/B186

AUTHORS:

Tolmacheva, T. A., Tsintsius, V. M., Andrianova, L. V.

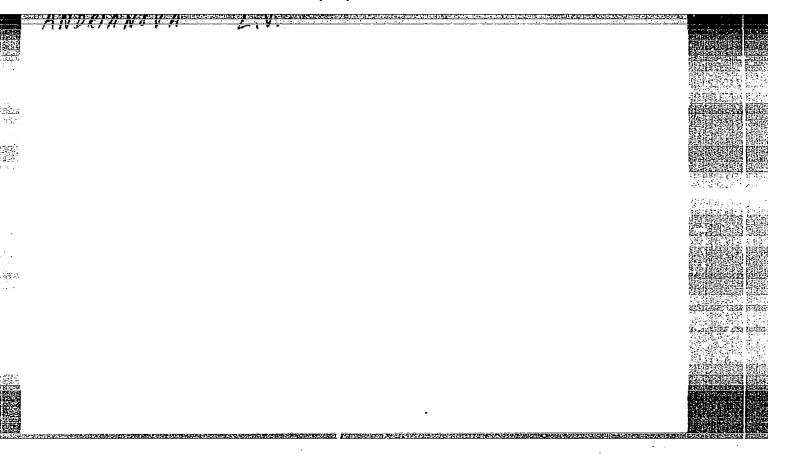
TITLE:

Study of vanadium triiodide

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 3, 1963, 553-559

TEXT: The formation enthalpy of vanadium triiodide was studied by the solubility method in a calorimeter at 25°C using 0.4 N alkali solution with 0.018 N hydrogen peroxide. An average of AH = -143.0±1.0 \text{ teal/mole} was found for the system VI_3 + 4KOH + $2\text{H}_2\text{O}_2$. The enthalpy of the system 1/2 V_2O_5 + 3KI + KOH + H_2O_2 was also determined. Its mean value was -7.7 ± 0.1 \text{ keal/g-atom vanadium.} The values found for the solubility were used to calculate the formation enthalpy of solid vanadium triiodide. It was -67±2 \text{ keal/mole for formation from metal and gaseous iodine, and -89±2 \text{ keal/mole for formation from metal and gaseous iodine was calculated: $\Delta S = -48.5\pm3$ entropy units. Further, the dissociation of vanadium triiodide to solid diiodide and gaseous iodine

Card 1/2



MEL'NIKOV, N.N.; VARSHAVSKIY, S.L.; SHVETSOVA-SHILOVSKAYA, K.D.; ANDRIANOVA,
L.V.; BOCHAROVA, L.P.; KOFMAN, L.P.

Phosphamide, a highly effective insecticide. Khim. prom. no.10:
17-20 0 '61. (MIRA 15:2)

AMDRIANOVA, L.V.

Agromateorological indexes of flax-fibor growth, Noteor. i gidrol. no.11:51-54 N *65. (HIRA 18:11)

1. TSentral my institut prognozov.

AUTHOR:

KAZAKOV,N.F., ANDRIANOVA,M.N.

PA - 3618

TITLE:

The Determination of the Cutting Properties of Tungsten-Hard-Alloys with Cemented Cobalt and Nickel Compounds. (Opredeleniye rachushchikh svoystv vol'framovykh tverdykh splavov na koralitovoy i nikelevoy

tsementiruyushchikh svyazkakh, Russian)

PERIODICAL:

Stanki i Instrument, 1957, Vol 28, Nr 6, pp 24-25 (U.S.S.R.)

ABSTRACT:

The hard alloys available at present, which make it possible to use high cutting velocities in metal-working contain tungsten- and titanium carbides of great hardness. Mechanical strength is, however, warranted by the cemented cobalt compounds. Attempts to use nickel instead of cobalt did not give satisfactory results either in Russia or in other countries. At the Moscow combine for hard alloys scientific research work has been carried out since 1953 concerning the production of tungsten-nickel hard alloys, on which occasion it was found that the alloys were more brittle than tungsten-cobalt alloys.

In 1955 an experimental alloy WN3K3 was produced at the same combine, and test work was carried out with the alloys WN 6 and WK 6,

Card 1/2

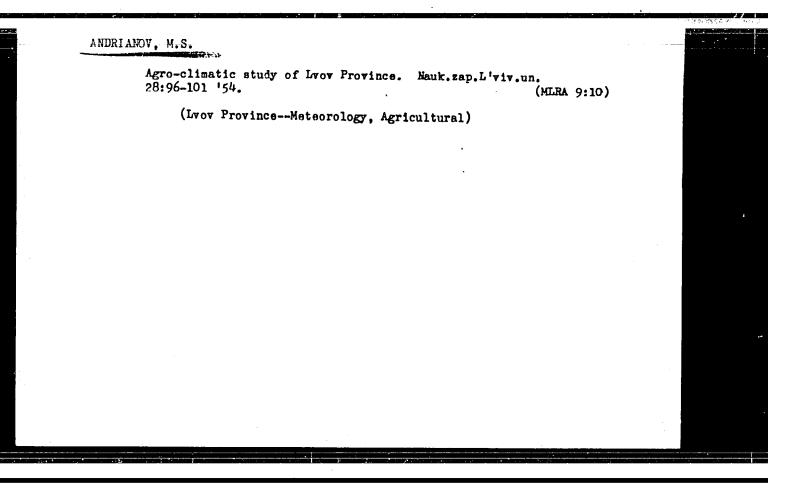
ANDRIANOVA, M. S.

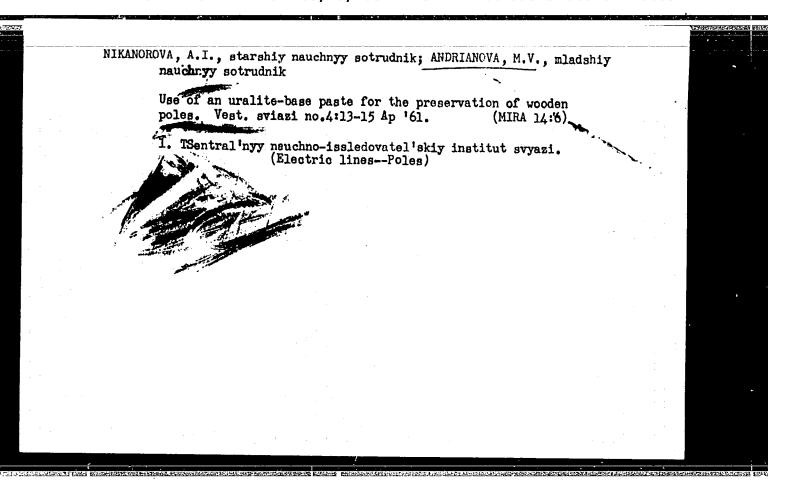
"Climatic Regional Classification of L'vovskaya Oblast".

Dopovidi ta povidomlynnya L'viss'k un-ta, No 4, part 2, pp 8-11, 1953.

A climatic regional classification of L'vovskaya Oblast on the basis of the mean temperature of January and July, the duration of the vegetational period, and periods with temperature higher than 10 and 15°, the yearly totals of precipitation, the coefficient of moisture, deviation of meteorological elements from background quantities, etc., was carried out with the local and principal climate-forming factors taken into consideration. Six climatic regions are obtained: North, Central, Eastern, South, West, and Southwest. The author proposes to give greater details of his proposed scheme in future articles. (RZhGeol, No 7, 1955)

SO: Sum No 884, 9 Apr 1956





ANDRIANOVA, N.

"Effect of the Conditions of Cultivation and Pollination on the Formation of Properties and Features of Interspecies Hybrids of Corn." Cand Agr Sci, All-UnionSelection and Genetics Inst, Odessa, 1953. (RZhBiol, No 1, Jan 55)

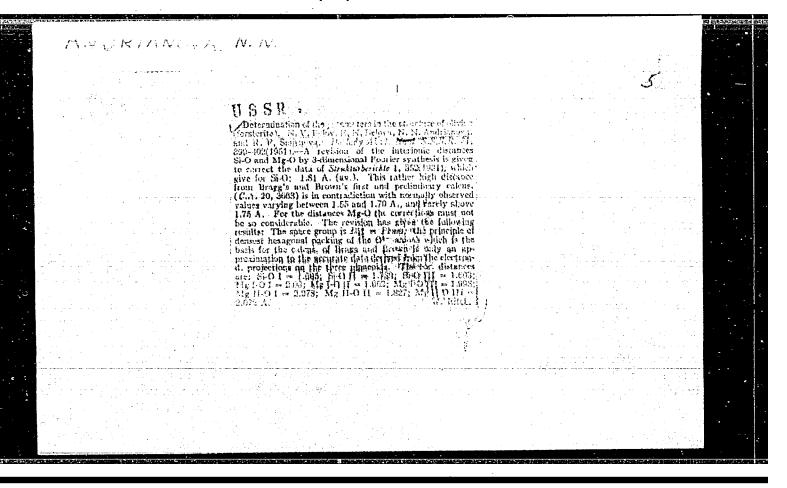
Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

80: SUM No. 556, 24 Jun 55

ANDRIANDVA, F. A.

Andrianova, N. A. "Treatment with H₂S-CO₂-mud baths of patients suffering from endarteritis obliterans and thrombophlebitis", (At the Ozero Gor'koye pa in Kurgan Oblast), Trudy Kazansk. gos. med. in-ta, 19h9, Issue 1, p. 35,h2, --Bibliog: 11 items.

SO: U-hll, 17 July 1953, (Letopis 'Zhurnal 'nykh Statey, No. 20,1949)



ANDRIANOVA, N. S.

ANDRIANOVA, N. S. "New forms of Psylla on willows", Nauch, -metod. zapiski (Council of Mehisters, RSFSR, Main administration for natural reservations), Issuell, 1946, p. 208-15, - Bibliog: 6 items.

SO: U-3042, 11 March 53, (Lopotis 'zhurnal 'nykh Statey, No.7 1949).

ANDRIAMOVA, N.S.

ANDRIANOVA, N. S. "Two new forms of Aphalara Frst. (Homoptera -- Psllidae) in the Moscow national forest", Nauch. Artod. zapiski (Council of Ministers, RSFSR, Main administration for natural reservations), Issue 11, 1948, p. 216-20, - Bibliog: 6 items.

SO: U-3042, 11 March 53, (Lopotis 'Zhurnal 'nykh Statey, No.7 1949).

ANDRIANOVA, N.S.

Harmful insects as sources of contamination of forest shelterbelts in the northern Yergeni region. Vest. Mosk.un. 8 no.5:93-100 My 153. (MLRA 6:8)

1. Kafedra entomologii. (Yergeni region--Windbreaks, shelterbelts, etc.) (Windbreaks, shelterbelts, etc.--Yergeni region) (Forest insects)

BEY-BIYENKO, G.Ya.; ANDRIANOVA, N.S.

Some orthopteroid insects from the Tingushan Forest Preserve in Kwangtung Province (South China). Zool.zhur. 38 no.12: 1813-1820 D 159. (MIRA 13:5)

1. Zoological Institute, Academy of Sciences of the U.S.S.R., Leningrad and Moscow State University. (Kwangtung Province--Orthoptera)

ANDRIANOVA, N.S.

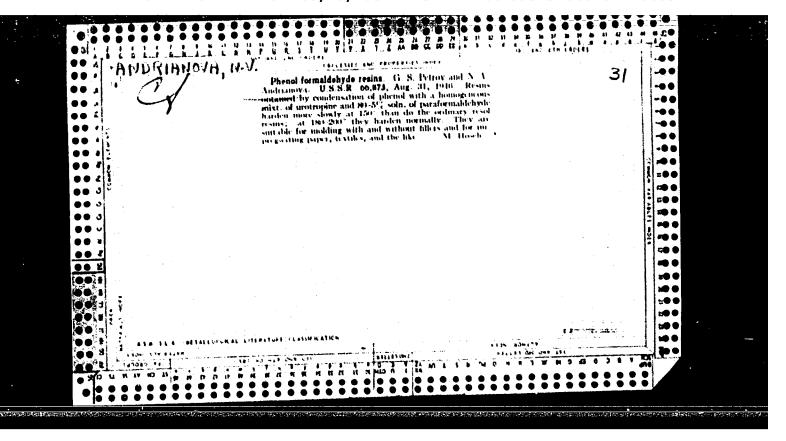
Some characteristics of the insects fauna of gulch forests in the environs of Stalingrad. Nauch.dckl.vys.shkoly: biol.nauki no.4: 13-18 *60. (MIRA 13:11)

1. Rekomendovana kafedroy entomologii Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

(STALINGRAD REGION--FOREST INSECTS)

SHELAGUROV, Aleksey Alekseyevich; Prinimali uchastiye: ANDRIANOVA,
N.V.; DOEROVOL'SKAYA, T.I.; MURASHKO, V.V.; MALINOVSKAYA,
N.I.; SEMIN, N.D.; ARTEM'YEV, S.G., red.; MIRONOVA, A.M.,
tekhn. red.

[Methodology of examination in the clinic for internal diseases] Metody issledovaniia v klinike vnutrennikh boleznei. Izd.2., ispr. i dop. Moskva, Izd-vo "Meditsina," 1964. 474 p. (MIRA 17:3)



S/191/60/000/004/005/015 B016/B058

AUTHORS: Andrianova, N. V., Batalova, L. G., Kanavets, I. F.

TITLE: Processing of Polyethylene Terephthalate to Film

PERIODICAL: Plasticheskiye massy, 1960, No. 4, pp. 18-27

TEXT: The authors report on the method elaborated by them for the transesterification and polycondensation of dimethyl terephthalate (DMT), from which polyethylene terephthalate (PETP) is produced. The blowing of nitrogen, vapor, or inert gas through the reaction mass is discarded in this process. The polymer obtained by the authors warrants the required film properties. This polymer was synthetized for the first time by V. V. Korshak and collaborators, under the name of "lavsan", by polycondensation of ethylene glycol with terephthalic acid. The film produced by conventional methods loses its amorphous state when heated. This was prevented by the authors by orientation of the amorphous film and by heating it in the orientated state. The authors consider the following points as being the most important problems of the manufacture of films from PETP: 1) determination of the quality of the polymer, warranting a desired quality of the film;

Card 1/4

Processing of Polyethylene Terephthalate to Film

S/191/60/000/004/005/015 B016/B058

2) determination of the rate and temperature of extension, as well as the temperature and duration of film stabilization; 3) determination of the degree of orientation and the extension coefficients of the film. For the determination of the structural and mechanical properties of the film, the authors recommend an elastometer (Fig. 1) with special clamps, developed at the NIIPM (Nauchno-issledovatel skiy institut plasticheskikh mass, Scientific Research Institute of Plastics). The degree of film extension is transferred to a dynamometer and automatically recorded in a diagram. This instrument is described in Ref. 1. From data determined by means of the elastometer, the authors conclude that extension should take place at the highest possible rate and at the lowest possible temperature, for the purpose of increasing the film strength. These two conditions are determined by the stress required for the orientation of the polymer. It is noted that a stress of 80 kg/cm² must be applied at the constriction of the cross section of the specimen and one of 300 kg/cm2 outside this section. The film strength gradually increases in the direction of extension, whereas it decreases perpendicularly to the direction of extension. By extension in two directions perpendicular to each other, the authors therefore obtained equal film strength in both directions. The coefficient of extension

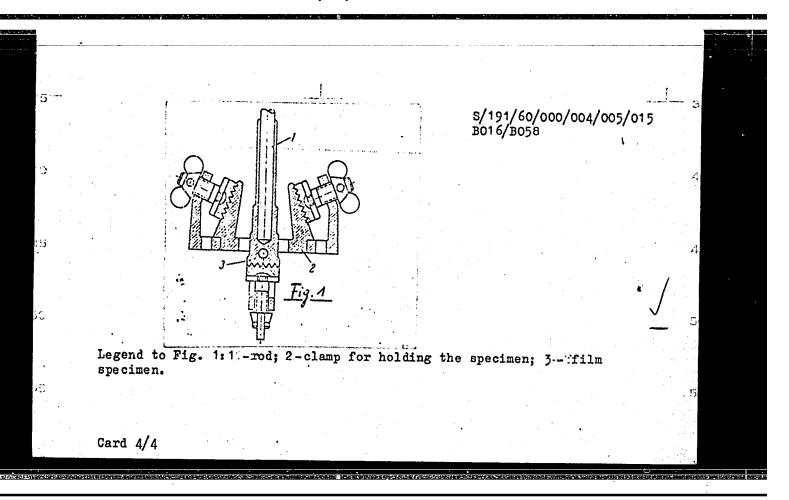
Card 2/4

Processing of Polyethylene Terephthalate to S/191/60/000/004/005/015 B016/B058

was determined from the change of thickness, surface, and strength of the film produced at various temperatures. The coefficients of extension thus ascertained determine how many times the film is to be extended in both directions on the extension device. The authors further propose a method directions on the extension device. The authors for film production. They for determining the applicability of PETP resins for film production. They come to the conclusion that the resin quality is determined by the shear come to the viscosity of an amorphous film extended at given rate and stress or the viscosity of an amorphous film extended at given rate and temperature. Stable film dimensions are obtained by heating at 180°C. Film shrinkage can be prevented by orientation in two directions. As the film shrinkage can be prevented by orientation in two directions. As the film cannot be welded, the authors glued it successfully with glue made from cannot be welded, the authors glued it successfully with glue of the type diethylene glycols. The film may be glued to metal with glue of the type diethylene glycols. The film may be glued to metal with glue of the type by-4 (BF-4). Papers by V. A. Kargin and T. I. Sogolova (Refs. 5-7) are mentioned. There are 17 figures, 3 tables, and 14 references: 11 Soviet, 2 British, and 1 US.

Card 3/4

5



8/191/63/000/002/005/019 B101/B186

AUTHORS:

Medvedeva, F. M., Andrianova, M. V.

TITLE:

Synthesis of mixed polyesters of ethylene glycol with furan-2,5-dicarboxylic and terephthalic acids

PERIODICAL:

Plasticheskiye massy, no. 2, 1963, 14-15

TEXT: To produce polymers with properties similar to those of polyethylene terephthalate, mixed esters of ethylene glycol were synthesised from the dimethyl esters of furan-2,5-dicarboxylic (I) and terephthalic (II) acids and from ethylene glycol in the presence of sinc discetate at 160-210°C by and from ethylene glycol in the presence of sinc discetate at 160-210°C by interesterification, and were polymerized at 0.5-1 mm Hg and 200-270°C. The melting points of the polymers so obtained depended on the composition. With 0 mole% of I and 100 mole% of II the m.p. was 260°C and fell linearly with 0 mole% of I and 40% II, rising again to 216°C with 100% I and 0% II. to 138°C with 60% I and 40% II, rising again to 216°C with 100% I and 0% II. The glass transition points for these three compositions were respectively. The glass transition points for these three compositions were respectively. 255, 100, and 212°C. The individual polyesters and those with less than 20% of the other component are light-gray, opaque, and crystalline. The polymers with compositions between 30 + 70% and 70 + 30% are brown, Card 1/2